Bureau of Epidemiology & Public Health Informatics

DEPARTMENT OF

EPI UPDATES

Volume 1, Issue 7

December



INSIDE THIS ISSUE:Meet the Staff2KS PHTN2Outbreak Summaries3Featured Outbreaks4KS-EDSS Case Counts5Quality Indicators6

Kansas Department of Health and Environment

Bureau of Epidemiology and Public Health Informatics

D. Charles Hunt, MPH, State Epidemiologist and Director, BEPHI

Lou Saadi, Ph.D., Deputy Director and State Registrar

Jennifer Schwartz, MPH, Deputy State Epidemiologist

Ingrid Garrison, DVM, MPH, DACVPM State Public Health Veterinarian

Farah Ahmed, PhD, MPH Environmental Health Officer

Virginia Barnes, MPH Director, Surveillance Systems. Epi Updates Editor

CSOB 1000 SW Jackson St. Topeka, KS 66612 Phone: 1-877-427-7317 Fax: 1-877-427-7318 Email: epihotline@kdheks.gov Epi Hotline: 877-427-7317

KS-EDSS NEWS

Token renewal is under way!

If your token expires

12/31/2010 and you have

not received a renewal

notification, please

email me at

sdickman@kdheks.gov so

that I can send you an

updated User Agreement
and ensure that you receive

your new token prior to

December 31, 2010.

With the New Year fast approaching, here are some good resolutions for using KS -EDSS more efficiently in 2011:

- Check for new investigations at least twice daily perhaps first thing in the morning, then sometime in the afternoon. This is a good habit to develop. You may have to schedule yourself to check for the investigations, but soon it will become a second nature.
- Add dates in the From/To area on the Address History

Tab. You can do this by hitting the "Edit" button to the side of the current address. The 'From' date does not need to be the exact date the person moved to that address (unless you can get that information!), but needs to be in the timeframe of the case. If you are entering an additional address you will need to put a 'To' date in the original address before you attempt to put in the new address. You may then put in the new address. You will need to add a 'From' date that does not overlap with the previous address. Check the "Case Address" box if you want the new address to be the Investigation Address.

• Make a search to view cases from just your county and not the whole region—First click on 'New Search' on left menu. Name your search. Check the default button it the top right corner

(if you want this as default search). Scroll down to the 'Patient Address' section and highlight your county in the 'County' field. Hit the "Save and Finish" button at the bottom or the page. This should take you to the 'Searches' page. From there you may search, edit or delete your search. If you hit the "Search" button a screen with a case listing of all cases in your county will load. In the left drop down at the top of the case listing page select "Report Date" and hit 'Search'. This will bring your most recent cases to the top of the page. This step will have to be done every time you login. — S.D.

If you have questions about any of these tips, or on other KS-EDSS functionality, please call Susan Dickman at (785) 296-7732 or email ksedssadmin@kdheks.gov.

CALENDAR OF UPCOMING EVENTS:



There are no upcoming events at this time. Happy Holidays!



Have an upcoming event you would like included in the next issue?

Contact <u>vbarnes@kdheks.gov</u> with details.

Page 2 Volume 1, Issue 7

NEW STAFF:

DR. FARAH AHMED - ENVIRONMENTAL HEALTH OFFICER

arah S. Ahmed has recently joined the Bureau of Epidemiology and Public Health Informatics as the new Environmental Health Officer. Farah has a MPH in International and Family Health and a PhD in Epidemiology, both from The University of Texas School of Public Health (UTSPH) in Houston, Texas. While working on her PhD, Farah was a National Institute for Occupational Safety and Health (NIOSH) trainee, so much of her



research interests lie in occupational and environmental health. She is the

Principal Investigator of a study through UTSPH examining work-related asthma among dental and radiography professionals. Prior to joining KDHE, Farah worked for Shell Oil in the Epidemiology Department. Farah has published papers in the Annals of Epidemiology, the Journal of Occupational and Environmental Medicine, the Journal of Occupational and Environmental Hygiene and the British Medical Journal.

THE KANSAS ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM

The Kansas Environmental Public Health Tracking Program (KSEPHTP) began in 2009 with funding from the Centers for Disease Control and Prevention (CDC). This program responds to the need to strengthen the agency's efforts to protect the public from exposure to environmental hazards. The program's goal is to track concurrently environmental hazards, exposure to environmental hazards, and relevant health outcomes. It will allow KDHE, local agencies, and other policy makers to monitor and share information with the public on environmental hazards and possible health effects, facilitate research on possible linkages between environmental hazards and health outcomes, and to strengthen the state's capacity to respond to environmental hazards.

Structurally, the KSEPHTP is composed of a network of data stewards, stakeholders, and resources, and a portal for displaying the data for public consumption and providing access to secure datasets for research purposes. The program is also part of the National Environmental Public Health Tracking Network (EPHTN); which is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources. EPHTN has developed a set of nationally consistent data and measures (NCDM); which facilitate the collection, integration, analysis, interpretation, and dissemination of data from participating states. The current

NCDMs cover data on outdoor air, drinking water, childhood lead poisoning, asthma, cancer, the built environment, carbon monoxide poisoning, reproductive health and other health outcomes.

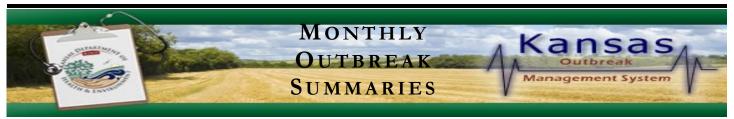
The KSEPHTP has just begun the second year of a 5-year grant. The program falls under the Bureau of Environmental Health, directed by Tom Langer, MPA. Ms. Janet Neff, a long-time KDHE employee and a former Cancer Prevention and Control Program Director, accepted the position of Program Director in September. In November, Farah Ahmed, PhD, MPH, joined the staff as the Environmental Health Officer, replacing Ingrid Garrison, DVM, MPH, DACVPM, who continues to provide scientific oversight to the program. Henri Menager, MPH, is the Environmental Epidemiologist for the program. During the first year, the program spent a lot of time conducting outreach to data stewards and potential data users. Staff supported several KDHE efforts to address environmental health events such as hazardous algae blooms and heat -related health outcomes that occurred during the 2010 summer months. In addition, the KSEPHTP successfully submitted to the national EPHTN the Kansas childhood blood lead screening data in a format that is consistent with the NCDMs. This is considered a resounding success for Kansas, as the program is still in the planning phase of the grant.

This success would not be possible without the effective cooperation of the

Healthy Homes and Lead Hazard Prevention Program (HHLHPP) staff. They not only provided access to the requested data, but also spent numerous hours walking KSEPHTP staff through their management information system and helping with the production of the metadata for the final dataset. In return. the KSEPHTP epidemiologist helped the HHLHPP staff streamline some of the work processes by creating SAS programs to automate them. The data has been successfully submitted but the cooperation between the two programs will continue. Several joint projects are underway; including a project to revamp the HHLHPP annual report and another to redesign the report cards, a feedback device for providers affiliated with the program.

The KSEPHTP staff is proud of its accomplishments for the past twelve months and is greatly encouraged by the level of interest and collaboration that it has received from all its current and potential partners. Staff are confident that despite the many anticipated challenges in the months ahead, the program will successfully complete the second year of its planning phase. Over the next period, the program will continue to work with partners to acquire new environment, hazards, and health outcomes data and compile standardized indicators from them for consumption at the national, state, and local levels. - H.M.

Epi Updates Page 3



Sabetha Shigella— An outbreak of Shigella was detected in a Sabetha elementary school using routine surveillance. Based on the information available an outbreak investigation was initiated on November 4. 2010 by Nemaha County Health Department (NCHD) and the Kansas Department of Health and Environment Bureau of Epidemiology and Public Health Informatics (KDHE-BEPHI). Eight cases currently meet the case definition, and there are 11 probable cases. The NCHD continues to conduct interviews of ill persons and made recommendations to the school regarding prevention measures. NCHD communicated with local physicians and requested that they contact the health department if they were suspecting a case of Shigella, and if the physician would be treating the patient empirically and not conducting testing. Currently this is an ongoing outbreak that is suspected to be person-to-person. -J.D.

Pottawatomie Shigella —

An outbreak of Shigella was detected in the Wamego Schools in Pottawatomie County using routine surveillance. Based on the information available an outbreak investigation was initiated on November 9, 2010 by Pottawatomie County Health Department (PCHD) and KDHE-BEPHI. The Kansas Department of Agriculture (KDA) was notified and an inspection and food handler surveys was conducted. There are currently 11 confirmed cases. Three ill food handlers were identified from the employee surveys. PCHD continues to conduct interviews

of newly identified *Shigella* cases and has made recommendations to the school regarding prevention measures. Currently this is an on-going outbreak that is suspected to be person-toperson.—J.D.

Johnson County Norovirus - On November 10, 2010, Johnson County Health Department (JCHD) was alerted to a potential outbreak of gastrointestinal illness at a long term care facility. The investigation revealed 82 cases of vomiting and diarrhea among residents and staff. Five stool specimens were obtained and tested positive for norovirus. Johnson County Environmental Department and the JCHD worked with the facility to ensure proper cleaning and control methods were being utilized, which interrupted the transmission of the disease. -E.L.

Norovirus in a Johnson County Workplace

On November 16, 2010, KDA was notified of a possible outbreak of gastrointestinal illness among coworkers who ate a catered lunch from a Johnson County restaurant. The preliminary complaint indicated that 45 individuals ate the catered lunch on November 12, and 34 became ill with vomiting and diarrhea within 48 hours. Some of the coworkers also reported sharing a lunch of self-prepared and store-bought foods on November 11.

An online questionnaire was distributed to the workplace; 17 workers completed the survey (response rate, 38%). The respondents' median age was 46 years. Fifteen individuals reported feeling ill in the days following the meal. Fourteen

met the case definition of illness: onset of diarrhea (three or more loose stools within a 24hour period) and/or vomiting after eating the November 11 or November 12 lunch. All cases reported eating the catered November 12 lunch: 12 (86%) reported eating the November 11 lunch. One of the 14 cases had not yet recovered from her/ his illness by the time he/she completed the questionnaire. Among those who recovered, the duration of illness ranged from six to 95 hours (median duration, 41 hours). The most frequently reported symptoms were diarrhea (n=13), nausea (n=12), stomach cramps (n=12), vomiting (n=11), and chills (n=11).

One case submitted a stool specimen for testing at Kansas Health and Environmental Laboratories (KHEL) — it was positive for norovirus. Thirteen of the 14 cases became ill within a 36hour time frame, suggesting a single source of infection rather than person-to-person transmission of the virus. It is unclear as to whether the virus was transmitted by food from the catered November 12 lunch, or by a coworker whose symptoms began prior to that lunch. No food was statistically associated as the cause of illness, and no restaurant employees reported recent gastrointestinal illness. D.N.

Norovirus associated with Jason's Deli

On November 17, 2010, KDA was notified of a possible outbreak of gastrointestinal illness among individuals who shared a meal from the Jason's Deli in Shawnee County. The preliminary complaint indicated that a party of four had lunch on November 14, and all became ill with nausea and diarrhea within 48 hours. Additional complaints

involving three additional groups who ate lunch on November 14 were received by KDA on November 18 and 19.

Telephone interviews conducted by the Shawnee County Health Agency revealed that fourteen individuals (median age, 79 years) from seven different households ate at approximately 12:30 P.M. on November 14. Thirteen individuals reported feeling ill in the days following the meal. Twelve met the case definition of illness: onset of diarrhea (three or more loose stools within a 24-hour period) and/or vomiting after eating at the restaurant. The incubation period of illness ranged from 22 to 59 hours; the median incubation period was 36 hours.

Two of the twelve cases had not yet recovered from their illness by the time they were interviewed. Among those who recovered, the duration of illness ranged from eight to 60 hours; the median duration of illness was 45 hours. The most frequently reported symptoms were diarrhea (n=11), nausea (n=9), vomiting (n=8), abdominal pain (n=7), and fever (n=5). Three individuals from two different households volunteered to provide stool specimens for testing at KHEL. All tested positive for norovirus.

No food item could be conclusively associated as the cause of illness. — D.N.

For reports of recently conducted outbreak investigations, please visit our website at http://www.kdheks.gov/epi/outbreaks.htm

To report an outbreak call the Epi Hotline at 1-877-427-7317

Page 4 Volume 1, Issue 7

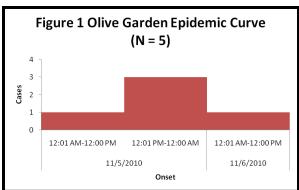
FEATURED OUTBREAK: GASTROINTESTINAL ILLNESS IN SHAWNEE COUNTY

On November 10, 2010, KDHE-BEPHI was notified of a potential outbreak associated with Olive Garden in Shawnee County.

Based on the information available an outbreak investigation was initiated. Shawnee County Health Agency conducted interviews of ill complainants and three stool specimens were collected. The only meal in common was the meal at Olive Garden on November 4th. Three of the ill complainants did attend a water aerobics class at a local athletics club on November 3, 2010. Onset dates and times were collected for five out of the six complainants, and it points to a possible point source outbreak

(Figure 1). The case definition for this outbreak was a person who developed vomiting or diarrhea (three or more loose stools in 24 hour period of time) after eating a meal at Olive Garden on November 4, 2010. All six individuals met the case definition for this outbreak. All six cases were female and between the ages

of 59-65. Incubation period ranged from 14-42 hours with a median of 33 hours reported. Duration of illness ranged from 55



-151 hours with a median of 73 hours. No individuals reported being hospitalized or seeking care from a health care provider. The most common reported symptoms were diarrhea, abdominal cramps, vomiting, chills, nausea, fever, and headache. The Kansas Department of Agriculture con-

ducted an inspection of the facility and found five critical violations: 1) Employee was eating in kitchen area where meals are

prepped, 2) Employee went from handling dirty dishes, to handling clean dishes without proper hand washing, 3) Dipper Spoon hanging in clean storage area had dried tomato on it, 4) No hot water available in North side of the kitchen at employee hand sink, 5) The pipe underneath the dump sink (where they dump glasses and extra food items) was not connected.

One stool specimen tested positive for norovirus; however the other two specimens were negative for norovirus. The other specimens were collected 13 days and 15 days after the onset of

symptoms. This outbreak was most likely caused by norovirus; however, due to a second stool specimen not being collected sooner, we cannot confirm the etiological agent for this outbreak. — J.D.

"KDA determined that there could have been improper handling of the turkey with inadequate heating and reheating temperatures to prevent bacterial growth."



SACRED HEART CHURCH CLOSTRIDIUM PERFRINGENS ENTEROTOXIN A OUTBREAK

On November 9, 2010. the Kansas Department of Agriculture (KDA) inspected a parochial school kitchen after an individual reported becoming ill following the Sacred Heart Church fundraiser supper prepared at the kitchen. Following the initial complaint, an additional eight individuals reported illness to the church office or to the local health department, initiating an outbreak investigation by the Kansas Department of Health and Environment, City-Cowley County Health Department, and KDA. An online survey was developed and

launched. A press release was used to inform the public about the investigation, the survey, and to identify event attendees. Approximately 1500 people attended the dinner or took food home from the event. Out of 527 survey respondents, 174 people reported becoming ill within 24 hours of eating food from the dinner, with a median incubation time of 10.3 hours (0.5-24). All ill individuals ate turkey. Two stool specimens were collected and both tested positive for Clostridium perfringens enterotoxin A and were culture positive for C. perfringens. Additionally, turkey from the

event also tested positive for C. perfringen; no other food items were positive. The isolated bacteria was indistinguishable by pulsefield gel electrophoresis and the bacteria cultured from the turkey was also positive for enterotoxin A. KDA determined that there could have been improper handling of the turkey with inadequate heating and reheating temperatures to prevent bacterial growth. Based on findings of this outbreak investigation. education on proper food preparation and handling for large groups will be offered locally.

- A.P

Epi Updates Page 5

Breakdown of the 585 Cases* in KS-EDSS by Disease	November 2010	Average 07-09
Animal Bite: Potential Rabies Exposure	1	0
Brucellosis	1	1
Calcivirus/Norwalk-like virus (norovirus)	11	1
Campylobacter	39	35
Cryptosporidiosis	11	7
Dengue	1	0
Ehrlichiosis, Anaplasma phagocytophilum	1	0
Ehrlichiosis, Ehrlichia chaffeensis	1	0
E. coli O157:H7	2	2
E. coli shiga toxin + (not serogrouped)	3	1
E. coli shiga toxin + (serogroup non-0157)	1	0
Foodborne Disease Outbreak	1	0
Foodborne Illness	21	0
Giardiasis	16	12
Haemophilus influenzae, invasive	4	1
Hemolytic Uremic Syndrome, post-diarrheal	1	1
Hepatitis A	47	15
Hepatitis B, acute	9	6
Hepatitis B, chronic	43	29
Hepatitis C virus, chronic	144	134
Influenza, A & B	2	0
Legionellosis	3	3
Listeriosis	1	0
Lyme disease	5	12
Malaria	1	1
Measles (Rubeola)	3	1
Meningitis; other bacterial	1	0
Mumps	3	2
Pertussis	52	40
Rabies, Animal	3	3
Rubella (German measles)	1	0
Salmonellosis	29	24
Shigellosis	34†	10
Spotted Fever Rickettsiosis (RMSF)	6	6
Streptococcal Disease, invasive, Group A	1	2
Streptococcus pneumoniae, invasive	23	5
Transmissible Spongioform Encephalitis	3	1
Tularemia	2	1
Typhoid Fever	1	0
Varicella	47	76
West Nile, non-neurological	6	4



* Cases reported include cases with the case classifications of Confirmed, Probable, Suspect, and Not a Case.

† Increased number of cases due to outbreaks



Page 6 Epi Updates

Please visit us at: www.kdheks.gov/epi

KS-EDSS DATA QUALITY INDICATORS

EPHI has implemented a set of monthly quality indicators to encourage data quality improvement in KS-EDSS. A table of the previous month's statewide percentages will be included in this newsletter each month. Eventually, a separate breakdown of data completeness will be provided directly to individual county administrators at both the regional and county levels. The percentage complete column represents the frequency of completion of the corresponding data field in KS-EDSS. Fields in dark green have improved since the previous month. Frequency of completion has declined in blue fields. All fields in light green have not changed since the previous month.

- V.B.



- *Calculations do not include Hep B, chronic Hep C, chronic.
- ** Out-of-state cases not included in this calculation.
- # Animal rabies not included in this calculation.
- † Unknown considered incomplete.
- †† The default setting of this field must be updated in KS-EDSS before frequency can be



KDHE Mission:

To Protect the Health and Environment of all Kansans by Promoting Responsible Choices

Our Vision

Healthy Kansans living in safe and sustainable environments.

November 2010		
KS-EDSS Indicator	Percentage complete	
Address Street	83% **, #	
Address City	96% **	
Address County	99% **	
Address Zip	92% **	
Date of Birth	99%#	
Died	41%†	
Ethnicity	53%, †	
Hospitalized	45%, #, †	
Imported	n/a ††, #	
Onset Date	45% *, #	
Outbreak Associated	n/a ††	
Race	62%, †	
Sex	100%, †	
Supplemental Form Complete	46%	